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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,901	10/03/2000	Wanrong Lin	MAT1-195US	4651
23122	7590	11/20/2003	EXAMINER	
RATNERPRESTIA P O BOX 980 VALLEY FORGE, PA 19482-0980			REKSTAD, ERICK J	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/677,901

Applicant(s)

LIN ET AL.

Examiner

Erick Rekstad

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,8,12 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-5,11 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☒ Claim(s) 9,10,17 and 18 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Detailed Action

This Office Action is in response to Applicant's Patent Application, Serial No. 09677901, with a File Date of 10/03/2000.

Election of Species

This application contains claims directed to the following patentably distinct species of the claimed invention:

Figure 7 constitutes Species 1

Figure 10 constitutes Species 2

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, ^{Claim}~~Species~~ 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Kenneth Nigon on 11/06/2003 a provisional election was made with out traverse to prosecute the invention of Species 1, claims 1-8 and 11-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-10 and 17-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,618,442 to Chen et al.

[claims 1 and 11]

Chen teaches the method and system for transcoding a first encoded video signal that has been compressed using a discrete cosine transform (DCT) operation in a first video format into a second encoded video signal that is compressed using a DCT operation in a second video format, different from the first video format, the method comprising:

Decoding the first encoded video signal to obtain a stream of DCT coefficient blocks in the first format (602 in Figure 6);

Reformatting the DCT coefficient blocks obtained from the first encoded video signal into DCT coefficient blocks for the second format (604 in Figure 6);

Encoding the second-format DCT coefficient blocks to obtain the second encoded video signal (606 in Figure 6)(Col 6 Lines 45-67, Col 7 Lines 1-12, Figs. 3 and 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of US Patent 6,219,457 to Potu.

[claim 2]

Chen teaches the method of transcoding a DV stream to an MPEG stream by partially decoding a DV stream by reducing the stream to DCT blocks as required by claim 1. Chen does not teach the use of ordering the DCT coefficient blocks based on a zigzag scan. Potu teaches the method of ordering the DCT coefficient blocks based on a zigzag sequence (Col 5 Lines 31-42, Fig 3). Potu also teaches that the zigzag ordering can precede or follow quantization. It would be obvious to one skilled in the art at the time of the invention to perform a zig-zag ordering of DCT coefficients before the quantization step so that in the transcoding process of claim 1 the zigzag ordering is preserved.

[claim 3]

Chen teaches the method of transcoding a DV stream to an MPEG stream without run-length decoding and encoding. Chen does not teach that the DV stream must be run-length encoded. Chen does describe a typical DV stream decoder that includes run-length decoding (Col 4 Lines 58-63, Fig 4). It would be obvious to one skilled in the art at the time of the invention to use the transcoder of Chen with a run-length encoded DV stream so that the run-length coding is preserved through the transcoding process as required by claim 3.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and Potu in further view of US Patent 6,141,447 to Linzer et al.

[claim 4]

Chen teaches the method of transcoding a DV stream to a MPEG stream as required by claim 1. Chen does not teach how the quantization steps are performed.

Potu teaches the use of a quantization table for use in a dequantization step and a quantization matrix for quantization step (Col 5 Lines 25-30, Col 6 Lines 64-67, Fig 1).

Potu does not teach using information from the dequantization table to adjust the quantization matrix. Linzer teaches the use of a auxiliary information line used to supply the quantization scales from the video decoder to the video encoder in order to reduce the cost and complexity of the transcoder (Col 5 Lines 12-26, Fig 5). It would be obvious to one skilled in the art at the time of the invention to combine the method of Chen, Potu and Linzer in order reduce the cost and complexity of a transcoder.

[claim 5]

It is well known in the art that the respective factors used to generate respective quantized DCT coefficients are powers of two and the use of shifting a value to multiply or divide by two (official notice). It would be obvious to one skilled in the art at the time of the invention to use coefficients of powers of two to generate respective quantized DCT coefficients in order to replace costly multiplication operations with shifting operations.

Claims 14, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of US Patent 5,550,640 to Tsuboi et al.

[claims 14,15, and 16]

Chen teaches the method of converting a DV stream to a MPEG stream. Chen does not teach the method with fixed length blocks. Tsuboi teaches the method of encoding a digital stream using fixed length block sizes and the decoding of the stream (Col 8 Lines 60-67, Col 9 Lines 1-24, Col 11 Lines 48-64, and Figs 1, 4, and 5). Tsuboi

also teaches the use of removing data from the blocks in order to maintain a target data quantity and reduce error (Col 10 Line 67, Col 11 Lines 1-3, Col 12 Lines 1-10). It is well known in the art to monitor the data rate of an output stream to adjust the encoding process to maintain a certain bit-rate. It would be obvious to one skilled in the art at the time of the invention to combine the transcoder of Chen with the fixed length block encoding/decoding method of Tsuboi in order to provide a transcoder that would take a DV stream from a medium that stores information in fixed blocks, such as a magnetic tape.

Allowable Subject Matter

Claims 7, 8, 12, and 13 are allowed. Chen teaches the use of the initial equation for the conversion but does not teach the manipulated equation as used in the claims (Col 8).

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,507,673 to Wang et al.

US Patent 5,940,130 to Nilsson et al.


US Patent 6,483,876 to Chang et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 703-305-5543. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Erick Rekstad


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600